

Remarks

Claims 1-15 are currently pending. All claims have been amended in order to present the claims as method of treatment claims appropriate for U.S. practice.

Support for the amendments is found in the originally-filed specification, p. 15, ll. 9-16; p. 16, ll. 19-23; p. 22, ll. 19-20; and p. 23, ll. 6-7. No new matter is added.

Restriction Requirement

The pending claims are drawn to methods of treatment. Each claim recites, explicitly or by dependency, a compound of formula I. The Office has required restriction of the application between various substituents present within the genus of the compound of formula I. Specifically, the Office proposes dividing the subject matter of the application into 5 or more applications as follows,

Group I, claim(s) 1-15, drawn to a compound of formula I where variable X is O and variable A or B forms a 1,2,3,4-tetrahydronaphthalene ring with the benzene ring to which it is fused.

Group II, claim(s) 1-15, drawn to a compound of formula I where variable X is S and variable A or B forms a 1,2,3,4-tetrahydronaphthalene ring with the benzene ring to which it is fused.

Group III, claim(s) 1-15, drawn to a compound of formula I where variable X is O and variable A or B forms a naphthalene ring with the benzene ring to which it is fused.

Group IV, claim(s) 1-15, drawn to a compound of formula I where variable X is S and variable A or B forms a naphthalene ring with the benzene ring to which it is fused.

Group V, claim(s) 1-15, drawn to a compound of formula I not covered by groups I-IV.

Further, the Office has required election of species for examination purposes.

Traversal of Restriction Requirement

The Restriction Requirement states that the claims have been interpreted as compound claims rather than method of treatment claims. Applicants assert that the claims should be and should have been considered method of treatment claims rather than compound claims. The claims have been amended to more clearly recite the claims as method of treatment claims in accordance with U.S. practice. If the Examiner would like to request an alternative restriction based on the claims viewed as method of treatment claims, Applicants offer to work with the Examiner to craft any appropriate restrictions in an expeditious manner.

In any event, Applicants respectfully traverse the restriction requirement. The Office's arguments in support of restriction are rebutted in turn below:

The Office has not provided a proper basis for restricting the claimed Markush group

The Office argues that Applicants' Markush group does not support Unity of Invention. However, the Office has failed to properly address Markush standards under PCT Rule 13.2.

MPEP 1850 describes unity of invention practice with regard to Markush groups.

[T]he requirement of a technical interrelationship and the same or corresponding special technical features as defined in PCT Rule 13.2, shall be considered to be met when the alternatives are of a similar nature.

When the Markush grouping is for alternatives of chemical compounds, they shall be regarded as being of a similar nature where the following criteria are fulfilled:

- (A) All alternatives have a common property or activity; and
- (B) (1) A common structure is present, i.e., a significant structural element is shared by all of the alternatives [...].

In paragraph (B)(1), above, the words "significant structural element is shared by all of the alternatives" refer to cases where the compounds share a common chemical structure which occupies a large portion of their structures, or in case the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art, and the common structure is essential to the common property or activity. The structural element may be a single component or a combination of individual components linked together.

The Office does not refute that the recited compounds have at least one common property under section (A), i.e. efficacy in treatment of CNS diseases.

The Office has purported to defeat Unity of the Markush group under section (B)(1) by including the summary of a computerized search showing multiple hits for a genus encompassing the recited compounds. The Office states that "[I]t is clear that applicant's compound core is not applicant's contribution over the prior art and the commonly shared structure does not constitute a structurally distinctive portion in view of the existing prior art."

Merely stating a number of hits from a recently queried computer database does nothing to address unity of a Markush group. By rule, the Markush structure must be viewed in view of the prior art. The instant application has an international filing date of January 7, 2005, with a foreign priority date of January 30, 2004. A computerized search conducted contemporaneously with the currently pending Office Action, not limited to a time frame prior to the applicable priority date of the application, has no relevance to Unity under PCT Rule 13.2. Thus, the Office has failed to support restriction under the Unity of Invention standards for Markush practice.

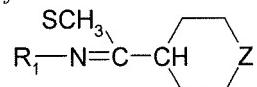
Mutually exclusive claim elements do not defeat Unity

The Office next argues that the restricted groups are unrelated on the basis of different core structures. The Office states that "Each invention has a different combination of rings for variables X, A, and B. As a result of the different combinations of these variables in the groups, unique separate structural queries are required for each invention".

According to PCT Guidelines, Unity of Invention is not defeated merely by recitation of mutually exclusive claim elements. See the following example with elements analogous to the instantly recited compounds:

10.39 *Example 19: common structure:*

*Claim 1: A compound of the formula:*



*wherein  $R_1$  is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy, and methyl;  $Z$  is selected from the group consisting of oxygen (O), sulfur (S), imino (NH), and methylene (-CH<sub>2</sub>-).*

*The compounds are alleged to be useful as pharmaceuticals for relieving lower back pain.*

In this particular case the iminothioether group  $-N=C-SCH_3$  linked to a six atom ring is the significant structural element which is shared by all the alternatives. Thus, since all the claimed compounds are alleged to possess the same use, unity would be present." PCT/GL/ISPE/1 10.38, Example 18, pg 84 (emphasis added).

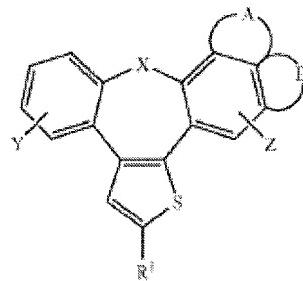
In view of this example, the recited compounds would at least have a significant structural element defined by the four main rings of the compound, i.e. the 7-membered ring, the two phenyls, and the thiophene. Thus, the recited compounds exhibit unity around their core structures just as the compounds of example 19. The Examiner is not allowed to divide the recited compounds on the basis of the X heteroatom, just as the example was not divided on the basis of the Z heteroatom. Referring to the claims, A and B are optional substituents and may be viewed as analogous to item  $R_1$  in the above example.

Thus, according to PCT guidelines, restriction on the basis of the recited X heteroatom is improper.

USPTO has already searched the underlying subject matter, so there is no undue search burden to merely update the search

The Office argues that there is a undue search burden to examine the compounds recited in the claims. The Office states that "Restriction for examination purposes as indicated is proper because [...] there would be a serious search and examination burden if restriction were not required".

The Office has not particularly pointed out why a serious search or examination burden is applicable in this case. Applicants note that the Office has recently searched substantially similar subject matter, and recently issued U.S. Patent 7,262,309 (issued August 28, 2007). The '309 Patent is directed to compounds of formula



wherein substituents A, B, R<sup>1</sup>, X, Y, and Z are substantially similar as the substituents recited in the instant application. The Office searched, examined, and issued the subject matter of the '309 Patent with regard to all recited substituents (did not restrict the compound by substituent).

There is no undue search burden in this case because substantially similar subject matter was recently examined by the Office, the results of which may be used by the instant Examiner. Further, the current restriction is contrary to the position recently taken by the Office with regard to the '309 Patent, i.e. that all recited substituents are properly placed in a single patent.

Concerning the Office's implication that the compounds are in different classifications and fields of search, the Examiner has demonstrated that the Office's search will be an electronic search based on chemical structure. Thus, any separate status or PTO classification are irrelevant as far as search and examination burden.

What will become burdensome, for both the Office and Applicants is to divide Applicants' invention into the 5 or more separate applications encouraged by the Examiner. Indeed, USPTO's stated policy is for Applicants to file claimed subject

matter in fewer rather than greater numbers of applications. Thus, the Restriction seems to be contrary to stated USPTO policy.

Applicants submit that the original position (no restriction of the compounds) taken by the USPTO is correct and that the current, contrary position taken by the current Examiner should be withdrawn in view of the original USPTO holding.

Election despite traversal

Applicants are required to make applicable elections despite a pending traversal. For complete compliance with the Restriction Requirement, Applicants elect group III. For election of species, Applicants elect Dimethyl-[3-(10-oxa-3-thia-benzo[e]naphtho[1,2-h]azulen-2-ylmethoxy)-propyl]-amine, found on the top of page 14 of the originally-filed specification.

Conclusion

In conclusion, the Restriction Requirement has been shown to be improper and Applicants respectfully request withdrawal of the requirement.

Applicants believe that no fees are due in connection with the filing of this paper other than those specifically authorized herewith. However, should any other fees be deemed necessary to effect the timely filing of this paper, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 07-1392. The Examiner is invited to contact the undersigned at (919) 483-8160, to discuss this case, if desired.

Respectfully submitted,



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